

WHAT IS CLAIMED IS:

1. An apparatus for inspecting a turbine blade of an aircraft engine, comprising:
 - a shaft having a proximate end and a distal end;
 - an attachment device coupled to the distal end of the shaft and capable of being attached to a strut of the aircraft engine;
 - an engagement device, moveably coupled to the attachment device, capable of moving away from the attachment device and attaching to a trailing edge of the turbine blade;
 - a probe, moveably coupled to the engagement device, capable of moving along a leading edge of the turbine blade to detect a surface anomaly of the turbine blade;
 - and
 - a control device for controlling the movement of the probe along the leading edge of the turbine blade in response to user manipulation.
2. The apparatus as defined in claim 1, further comprising a handle coupled to the proximate end of the shaft.
3. The apparatus as defined in claim 2, wherein the control device is coupled to the handle.
4. The apparatus as defined in claim 1, wherein the probe is a sensor.
5. The apparatus as defined in claim 1, wherein the control device is a knob or an electronic switch.
6. The apparatus as defined in claim 1, wherein the attachment device includes a device for attachment to the strut of the aircraft engine.

7. The apparatus as defined in claim 6, wherein the device is selected from a group consisting of a clip, a magnet, a tape and combinations thereof.

8. The apparatus as defined in claim 1, wherein the engagement device includes an arm having a groove capable of attaching to the trailing edge of the turbine blade.

9. The apparatus as defined in claim 1, wherein the engagement device includes:

- a plate positioned adjacent to the attachment device;
- a spring positioned between the plate and the attachment device;
- a first arm attached to the plate and having a groove for receiving the trailing edge of the turbine blade;
- a second arm attached to the plate and having a groove for receiving the trailing edge of the turbine blade, the second arm being spaced apart from the first arm;
- a rod connecting the first arm to the second arm; and
- a probe holder having the probe attached thereto and capable of moving along the rod and the leading edge of the turbine blade.

10. A device for accessing and inspecting a turbine of an aircraft engine without removal of the turbine from the aircraft engine and without removal of the aircraft engine from the aircraft, comprising:

- a tube having a proximate end and a distal end;
- a handle attached to the proximate end of the shaft;
- a blade engager coupled to the distal end of the tube and capable of moveably coupling to a trailing edge of a turbine blade; and
- a sensor coupled to the blade engager and capable of moving along a leading edge of the turbine blade to detect an anomaly of the turbine blade.

11. The device as defined in claim 10, further comprising an apparatus coupled to the distal end of the shaft and capable of being coupled to a strut of the aircraft engine.

12. The device as defined in claim 11, wherein the apparatus is selected from a group consisting of a clip, a magnet, a tape and combinations thereof.

13. The device as defined in claim 10, wherein the blade engager includes an arm having a groove that is removably coupled to the trailing edge of the turbine blade.

14. The device as defined in claim 13, wherein the handle includes a light emitting diode to indicate whether the groove is coupled to the trailing edge of the turbine blade.

15. The device as defined in claim 10, further comprising a knob coupled to the handle for moving the probe along the leading edge of the turbine engine in response to user manipulation.

16. An apparatus for detecting a crack in a blade of an aircraft engine, comprising:

- a tube having a proximate end and a distal end;
- a handle coupled to the proximate end of the tube;
- an attachment device coupled to the distal end of the tube and capable of being removably coupled to a strut of the aircraft engine;
- a plate moveably coupled to the attachment device;
- a device, coupled to the plate, capable of being removably coupled to a trailing edge of the blade; and

a probe positioned adjacent to the device and capable of traveling along a leading edge of the blade to detect a crack in the blade.

17. The apparatus as defined in claim 16, further comprising a probe movement device for controlling the movement of the probe along the leading edge of the blade in response to user manipulation.

18. The apparatus as defined in claim 16, wherein the attachment device is selected from a group consisting of a clip, a magnet, a tape and combinations thereof.

19. The apparatus as defined in claim 16, wherein the device includes an arm having a groove therein.

20. The apparatus as defined in claim 16, wherein the probe detects the crack by sensing a change in the impedance.